



Morbidity and Mortality

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

PRESUMPTIVE SMALLPOX – Washington, D.C.

A case of presumptive smallpox has been admitted to a hospital in the District of Columbia, prompting an extensive effort to confirm the diagnosis, to trace, vaccinate and to establish surveillance on all possible contacts. This involves persons residing in the District of Columbia and adjacent counties of Maryland and Virginia.

The patient in question is a 31-year-old resident of Ghana who arrived by air in New York City from Accra, Ghana, on May 7, 1965. She then proceeded directly to Washington, D.C. The patient noted onset of malaise, myalgia and possibly fever on May 17. On May 19, an eruption was noted, beginning first on one arm and then

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spread to involve the trunk and the other extremities during the subsequent 48 hours. On May 20, the patient and her husband took a cab to the emergency room of a Washington hospital. In view of the possibility of smallpox, the patient was transferred by ambulance to another hospital with more adequate isolation facilities and the District of Columbia Health Department was notified.

Table 1. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
 (Cumulative totals include revised and delayed reports through previous weeks)

| DISEASE | 20th WEEK ENDED | | MEDIAN 1960 – 1964 | CUMULATIVE, FIRST 20 WEEKS | | |
|--|-----------------|-----------------|-----------------------|----------------------------|---------|-----------------------|
| | MAY 22, 1965 | MAY 16, 1964 | | 1965 | 1964 | MEDIAN 1960 – 1964 |
| Aseptic meningitis | 20 | 36 | 29 | 548 | 551 | 485 |
| Brucellosis | 8 | 10 | 10 | 87 | 149 | 149 |
| Diphtheria | 1 | 10 | 6 | 75 | 98 | 190 |
| Encephalitis, primary infectious | 31 | 45 | --- | 602 | 666 | --- |
| Encephalitis, post-infectious | 26 | 28 | --- | 315 | 351 | --- |
| Hepatitis, infectious including serum hepatitis | 592 | 755 | 930 | 14,862 | 17,680 | 19,621 |
| Measles | 9,234 | 26,945 | 19,186 | 191,175 | 337,914 | 283,157 |
| Meningococcal infections | 63 | 53 | 50 | 1,666 | 1,302 | 1,036 |
| Poliomyelitis, Total | 2 | 1 | 8 | 10 | 26 | 123 |
| Paralytic | 2 | 1 | 8 | 9 | 21 | 92 |
| Nonparalytic | — | — | --- | 1 | 4 | --- |
| Unspecified | — | — | --- | — | 1 | --- |
| Streptococcal Sore Throat and Scarlet fever | 7,884 | 8,366 | 6,821 | 209,910 | 211,156 | 179,578 |
| Tetanus | 8 | 5 | --- | 81 | 80 | --- |
| Tularemia | 7 | 4 | --- | 74 | 92 | --- |
| Typhoid fever | 13 | 11 | 13 | 135 | 130 | 159 |
| Rabies in Animals | 80 | 118 | 100 | 2,026 | 1,846 | 1,648 |

Table 2. NOTIFIABLE DISEASES OF LOW FREQUENCY

| | Cum. | | Cum. |
|---|------|--|------|
| Anthrax: | 5 | Rabies in Man: | — |
| Botulism: | 3 | Smallpox: | — |
| Leptospirosis: Iowa-1 | 12 | Trichinosis: Tenn.-1 | 53 |
| Malaria: Conn.-1, Pa.-1, Ore.-1 | 22 | Typhus— | |
| Plague: | — | Murine: | 7 |
| Psittacosis: | 13 | Rky. Mt. Spotted: NY Up-State-1, Md.-1, Tenn.-1, Va.-1 | 15 |

PRESUMPTIVE SMALLPOX - Washington, D.C.

(Continued from front page)

The clinical illness has been characterized by fever (to 103°F) which persisted through May 24 (5 days after the appearance of the eruption), and by a vesicular rash with centripetal distribution involving primarily the trunk and to a lesser extent the face and extremities. One such lesion was observed on the soft palate and none were seen on the palms and soles. The lesions were somewhat superficially placed, irregular in size and shape and demonstrated some evidence of "cropping"; several lesions evolved from macule to vesicle to scab in the first four days of the eruption.

The patient received an apparently successful primary vaccination in childhood. She was revaccinated in April, 1965, without apparent take. She has a valid international vaccination certificate. She reported the possibility of contact with a child with a rash sometime during the month prior to her departure from Accra.

Fluorescent antibody results were positive for variola in several specimens of vesicular fluid; similar studies were negative for herpes and chickenpox. A skin biopsy through one of the lesions revealed the presence of intracytoplasmic inclusion bodies and no intranuclear inclusion bodies. Complement fixation antibody studies performed on the vesicular fluid were inconclusive. Isolation attempts in embryonated eggs are in process and appear to be highly suspicious for variola.

On the basis of the preliminary clinical, epidemiological and laboratory evidence the case was considered to be presumptive smallpox and extensive efforts have been undertaken by the District of Columbia Department of Public Health to minimize additional contacts with the patient and to detect, vaccinate and place under surveillance all persons who have come in contact with the patient. In addition to the strict isolation of the patient in a private room, the floor on which the isolation room is located has been closed to all visitors as well as to future admissions. Discharges from that floor have also been discontinued.

Tracing of contacts has led to the identification of over 900 contacts who have been placed in one of three categories of presumed risk. A total of 95 individuals are known to have had direct contact with the patient since May 13. Of these, 93 have been located, vaccinated and

placed under surveillance. These include the patient's husband and friends, taxicab and ambulance drivers, personnel of both hospitals, the District of Columbia Department of Public Health and the Communicable Disease Center, and laundry workers handling potentially contaminated laundry.

An additional 683 persons have been identified as indirect contacts of the patient. These include other hospital patients on the same floor, patients recently discharged from that floor, and visitors to that floor (before quarantine measures were instituted), medical and nursing staff not directly in contact with the patient, laundry workers, housekeepers and para-medical personnel who have been on the floor, and persons who were in the emergency room of the first hospital visited on May 20. To date, 599 of these 683 persons have been vaccinated and placed under surveillance.

The third category consists of secondary contacts. This includes the families and close associates of the 95 persons who had direct contact with the patient. More than 150 persons have been identified, over half of whom have been located and vaccinated.

The surveillance of the direct contacts includes both daily temperature recording and clinical examination for 16 days following the last known contact or date of successful vaccination. Indirect and secondary contacts have been instructed to report any suspicious symptoms occurring during the first 16 days after the last possible contact. These are to be investigated immediately. All persons in these categories will be contacted at the close of this period to ascertain their well being.

The hospital where the case is now isolated offered smallpox vaccinations to the entire staff on World Health Day during April 1965. Approximately one-third of all personnel responded and were vaccinated during this program.

Health authorities in Maryland, Massachusetts, New York City, North Carolina, Pennsylvania and Virginia are being advised of direct and indirect contacts who are now in their jurisdictions.

(Reported by Dr. Murray Grant, Director of Public Health, Department of Public Health, Government of District of Columbia, and a team from the Communicable Disease Center.)

BOTULISM - Washington

Five cases of clinical botulism and an additional suspected case have occurred among seven persons from Granger, Washington, who ate a common meal on the evening of May 21, 1965. The onsets of illness ranged from 28 to 60 hours after consuming the dinner. A line listing of the cases appears on opposite page

Eight foods were served at the involved meal: (1) fried chicken; (2) boiled rice; (3) macaroni salad (con-

taining boiled macaroni, hard boiled eggs, fresh cucumbers, fresh onions, and mayonnaise); (4) canned fruit cocktail mixed with jello; (5) canned, ripe, black, pitted olives; (6) canned pork and beans (served unheated); (7) ice cream (commercial) and (8) cake. The beverages were coffee for the adults and powdered reconstituted soft drinks for the children.

The food histories are tabulated on opposite page.

| Case No. | Age | Sex | Onset | Clinical Condition |
|----------|-----|-----|----------------------|--------------------|
| 1 | 37 | F | 5/22 | Severe |
| 2 | 17 | F | 5/22 | Severe |
| 3 | 14 | F | 5/23 | Fair |
| 4 | 18 | F | 5/23 | Fair |
| 5 | 6 | M | 5/24 | Good |
| 6 | 37 | M | 5/24 | Good |
| 7 | 13 | M | Developed no illness | |

All of those with clinical botulism (cases 1-5) ate all of the foods served. The suspect (case 6) who has very mild symptoms ate hurriedly and consumed only small amounts of each food. The only individual without illness (case 7) ate all foods except the pork and beans; however, the accuracy of this 13 year old boy's history is open to question.

| | Case No. | | | | | | |
|----------------|----------|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Chicken | + | + | + | + | + | + | + |
| Rice | + | + | + | + | + | + | + |
| Macaroni Salad | + | + | + | + | + | + | + |
| Fruit Salad | + | + | + | + | + | + | + |
| Olives | + | + | + | + | + | + | + |
| Pork and Beans | + | + | + | + | + | + | - |
| Ice Cream | + | + | + | + | + | + | + |
| Cake | + | + | + | + | + | + | + |

The pork and beans, the ripe olives and the fruit salad were commercially canned products. Laboratory studies are currently in progress in an attempt to ascertain the involved food.

(Reported by Dr. Ernest A. Ager, Chief of Epidemiology, State Department of Health, Olympia, Washington.)

POLIOMYELITIS - Nebraska

Two cases of paralytic poliomyelitis including one death have occurred in Morrill County, Nebraska. The first case became ill on May 9, 1965, five days after returning from a visit to Baja California, Mexico. Initial symptoms of fever and nausea were followed by stiff neck and flaccid paralysis of both lower extremities which progressed rapidly to include the upper extremities and respiratory musculature. The patient died on May 13. The second case is an 11-month-old male cousin of the first case and had onset of illness on May 12. This patient has weakness of the left arm and left facial nerve.

Stool specimens from seven of eight siblings of the

first case have yielded Type I poliovirus at the Virology Laboratory, Department of Microbiology, University of Nebraska, and confirmed as Type I at the CDC Kansas City Field Station. Laboratory studies on specimens from the second case are in process.

A mass vaccination program utilizing Type I oral poliomyelitis vaccine from the CDC Epidemic Reserve, will be conducted by the Nebraska Department of Health, in Morrill County (population 7,000) and adjacent Scotts Bluff County (population 34,000).

(Reported by Dr. E.A. Rogers, Director of Health, Nebraska Department of Health.)

SALMONELLOSIS - Michigan

During September, 1964, 9 of 11 persons partaking of a picnic dinner became ill with gastroenteritis traced to *Salmonella typhi-murium* phage type 2a. The onset of illness varied from 15 to 24 hours after the meal with symptoms of fever, chills, abdominal cramps, vomiting and diarrhea. *Salmonella typhi-murium* phage type 2a was recovered from stool cultures of 7 of the 9 persons ill.

An epidemiologic investigation suggested that home-made ice cream was the vehicle of infection. *Salmonella typhi-murium* phage type 2a was recovered from samples of the ice cream mix. Raw eggs and home-pasteurized cream were used in preparing the ice cream mix, which was uncooked prior to freezing. Samples of the raw cream, four raw eggs, and chicken feed were submitted to the laboratory for culture. All of these were negative for salmonella. However, because the sanitarian at the farm producing the

eggs used in making the ice cream had noted a sudden drop in egg production just prior to the outbreak, the investigation was continued. Because of the low production, the layers were slaughtered, and at the time of the slaughtering, samples of the intestine and liver were collected for culture. *Salmonella typhi-murium* phage type 2a was isolated from the composite sample of the livers and from 3 culture swabs taken from stool contents. The authors concluded that the raw eggs used in preparing the uncooked ice cream mix had been contaminated with salmonella.

(Reported by Dr. Donald B. Coohon, Epidemiologist, Morris L. V. French, Division of Laboratories, George Rouman, Chief, Environmental Health Division, C.A.E. Luval, M.D., Health Officer, and Madeline Heffron, Division of Nursing, Michigan State Department of Health.)

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Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
MAY 22, 1965 AND MAY 16, 1964 (20th Week)-Continued

| Area | Brucel- losis | Infectious Hepatitis including Serum Hepatitis | | | | | Meningococcal Infections | | | Tetanus | |
|-------------------------|------------------|---|-------------------|----------------------|----------------------|-------|-----------------------------|------|------|---------|--------------|
| | | Total incl. unk. | Under 20 years | 20 years and over | Cumulative Totals | | Cumulative | 1965 | 1964 | 1965 | Cum. 1965 |
| | | | | | 1965 | 1964 | | | | | |
| UNITED STATES... | 8 | 592 | 321 | 246 | 14862 | 17680 | 63 | 1666 | 1302 | 8 | 81 |
| NEW ENGLAND..... | - | 33 | 19 | 13 | 904 | 1856 | 3 | 83 | 36 | - | 4 |
| Maine..... | - | 3 | 1 | 2 | 188 | 637 | - | 9 | 5 | - | - |
| New Hampshire..... | - | 9 | 7 | 2 | 83 | 135 | - | 5 | - | - | 1 |
| Vermont..... | - | - | - | - | 42 | 234 | - | 2 | 1 | - | - |
| Massachusetts..... | - | 14 | 8 | 6 | 342 | 363 | - | 28 | 15 | - | 3 |
| Rhode Island..... | - | 3 | 1 | 1 | 117 | 92 | 1 | 12 | 2 | - | - |
| Connecticut..... | - | 4 | 2 | 2 | 132 | 395 | 2 | 27 | 13 | - | - |
| MIDDLE ATLANTIC..... | - | 93 | 45 | 48 | 2552 | 4029 | 6 | 232 | 150 | - | 4 |
| New York City..... | - | - | - | - | 446 | 583 | 1 | 36 | 20 | - | - |
| New York, Up-State..... | - | 42 | 18 | 24 | 1091 | 1799 | 2 | 59 | 43 | - | 2 |
| New Jersey..... | - | 28 | 17 | 11 | 432 | 737 | 1 | 68 | 50 | - | - |
| Pennsylvania..... | - | 23 | 10 | 13 | 583 | 910 | 2 | 69 | 37 | - | 2 |
| EAST NORTH CENTRAL... | - | 116 | 71 | 43 | 2865 | 2700 | 10 | 202 | 189 | 3 | 8 |
| Ohio..... | - | 35 | 23 | 12 | 860 | 705 | 1 | 57 | 53 | - | 1 |
| Indiana..... | - | 16 | 14 | 1 | 239 | 228 | 2 | 29 | 32 | 1 | 4 |
| Illinois..... | - | 14 | 7 | 6 | 548 | 466 | - | 51 | 41 | - | 1 |
| Michigan..... | - | 42 | 24 | 18 | 1047 | 1110 | 6 | 39 | 45 | - | - |
| Wisconsin..... | - | 9 | 3 | 6 | 171 | 191 | 1 | 26 | 18 | 2 | 2 |
| WEST NORTH CENTRAL... | 7 | 32 | 13 | 13 | 1007 | 1012 | 3 | 89 | 72 | - | 3 |
| Minnesota..... | - | 5 | 3 | 2 | 89 | 88 | 1 | 19 | 14 | - | 2 |
| Iowa..... | 5 | 8 | 4 | 2 | 397 | 151 | 1 | 5 | 3 | - | - |
| Missouri..... | - | 7 | 4 | 2 | 191 | 251 | 1 | 41 | 41 | - | 1 |
| North Dakota..... | - | 1 | - | 1 | 13 | 41 | - | 4 | 5 | - | - |
| South Dakota..... | - | 1 | - | 1 | 16 | 99 | - | 2 | - | - | - |
| Nebraska..... | - | 3 | - | - | 30 | 20 | - | 9 | 4 | - | - |
| Kansas..... | 2 | 7 | 2 | 5 | 271 | 362 | - | 9 | 5 | - | - |
| SOUTH ATLANTIC..... | - | 69 | 42 | 25 | 1526 | 1690 | 9 | 329 | 269 | 1 | 23 |
| Delaware..... | - | - | - | - | 56 | 37 | - | 4 | 4 | - | - |
| Maryland..... | - | 10 | 2 | 8 | 297 | 328 | - | 32 | 20 | - | 1 |
| Dist. of Columbia.. | - | - | - | - | 18 | 28 | - | 4 | 9 | - | - |
| Virginia..... | - | 12 | 7 | 4 | 383 | 242 | - | 37 | 30 | - | 4 |
| West Virginia..... | - | 13 | 11 | 2 | 230 | 287 | - | 23 | 19 | 1 | 1 |
| North Carolina..... | - | 6 | 4 | 2 | 124 | 321 | 4 | 58 | 44 | - | 2 |
| South Carolina..... | - | 1 | - | 1 | 51 | 61 | - | 50 | 42 | - | 1 |
| Georgia..... | - | 3 | 3 | - | 55 | 39 | 3 | 44 | 26 | - | 3 |
| Florida..... | - | 24 | 15 | 8 | 312 | 347 | 2 | 77 | 75 | - | 11 |
| EAST SOUTH CENTRAL... | - | 29 | 17 | 11 | 1116 | 1234 | 6 | 123 | 117 | 2 | 14 |
| Kentucky..... | - | 6 | 4 | 1 | 390 | 539 | 1 | 54 | 42 | 1 | 2 |
| Tennessee..... | - | 14 | 10 | 4 | 416 | 421 | 2 | 36 | 38 | - | 5 |
| Alabama..... | - | 9 | 3 | 6 | 170 | 168 | - | 22 | 20 | 1 | 6 |
| Mississippi..... | - | - | - | - | 140 | 106 | 3 | 11 | 17 | - | 1 |
| WEST SOUTH CENTRAL... | - | 44 | 22 | 22 | 1285 | 1281 | 8 | 242 | 172 | 1 | 13 |
| Arkansas..... | - | 4 | 1 | 3 | 179 | 139 | - | 12 | 10 | - | 4 |
| Louisiana..... | - | 11 | 5 | 6 | 217 | 275 | 5 | 132 | 85 | - | 2 |
| Oklahoma..... | - | - | - | - | 34 | 75 | 1 | 17 | 4 | - | - |
| Texas..... | - | 29 | 16 | 13 | 855 | 792 | 2 | 81 | 73 | 1 | 7 |
| MOUNTAIN..... | - | 36 | 17 | 7 | 901 | 1123 | 1 | 55 | 44 | - | 2 |
| Montana..... | - | 5 | 2 | 3 | 68 | 109 | - | 1 | - | - | - |
| Idaho..... | - | 1 | - | - | 145 | 108 | - | 7 | 1 | - | - |
| Wyoming..... | - | - | - | - | 30 | 37 | - | 2 | 3 | - | - |
| Colorado..... | - | 13 | 11 | 2 | 179 | 315 | 1 | 13 | 9 | - | 1 |
| New Mexico..... | - | 9 | 1 | - | 171 | 169 | - | 8 | 19 | - | - |
| Arizona..... | - | 3 | - | - | 173 | 246 | - | 16 | 3 | - | 1 |
| Utah..... | - | 5 | 3 | 2 | 130 | 103 | - | 6 | 2 | - | - |
| Nevada..... | - | - | - | - | 5 | 36 | - | 2 | 7 | - | - |
| PACIFIC..... | 1 | 140 | 75 | 64 | 2706 | 2755 | 17 | 311 | 253 | 1 | 10 |
| Washington..... | - | 10 | 5 | 4 | 226 | 299 | 2 | 24 | 19 | - | - |
| Oregon..... | - | 11 | 7 | 4 | 219 | 312 | - | 23 | 16 | 1 | 2 |
| California..... | 1 | 111 | 56 | 55 | 2105 | 2005 | 10 | 248 | 205 | - | 8 |
| Alaska..... | - | 7 | 7 | - | 139 | 85 | 3 | 9 | 6 | - | - |
| Hawaii..... | - | 1 | - | 1 | 17 | 54 | 2 | 7 | 7 | - | - |
| Puerto Rico | - | 27 | 24 | 3 | 484 | 387 | - | 3 | 23 | 1 | 15 |

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Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
MAY 22, 1965 AND MAY 16, 1964 (20th Week)-Continued

| Area | Measles | | | Strept. Sore Th. & Scarlet Fev. | Tularemia | | Typhoid Fever | | Rabies in Animals | |
|-----------------------|---------|------------|--------|---------------------------------------|-----------|--------------|---------------|--------------|----------------------|--------------|
| | 1965 | Cumulative | | | 1965 | Cum. 1965 | 1965 | Cum. 1965 | 1965 | Cum. 1965 |
| | | 1965 | 1964 | | | | | | | |
| UNITED STATES... | 9234 | 191175 | 337914 | 7884 | 7 | 74 | 13 | 135 | 80 | 2026 |
| NEW ENGLAND..... | 929 | 33199 | 11133 | 948 | - | - | - | 1 | 1 | 22 |
| Maine..... | 74 | 2348 | 1760 | 122 | - | - | - | - | 1 | 1 |
| New Hampshire..... | 6 | 356 | 177 | 6 | - | - | - | - | - | - |
| Vermont..... | 100 | 778 | 1899 | - | - | - | - | - | - | 19 |
| Massachusetts..... | 376 | 18009 | 3117 | 171 | - | - | - | 1 | - | 1 |
| Rhode Island..... | 79 | 3585 | 1185 | 44 | - | - | - | - | - | - |
| Connecticut..... | 294 | 8123 | 2995 | 605 | - | - | - | - | - | 1 |
| MIDDLE ATLANTIC..... | 849 | 9110 | 39899 | 421 | - | - | 5 | 24 | 3 | 77 |
| New York City..... | 95 | 1037 | 12082 | 21 | - | - | 2 | 12 | - | - |
| New York, up-State. | 286 | 2636 | 8895 | 250 | - | - | - | 6 | 2 | 71 |
| New Jersey..... | 109 | 1546 | 9453 | 74 | - | - | - | 2 | - | - |
| Pennsylvania..... | 359 | 3891 | 9469 | 76 | - | - | 3 | 4 | 1 | 6 |
| EAST NORTH CENTRAL... | 2752 | 38730 | 74456 | 781 | 3 | 7 | 3 | 19 | 9 | 289 |
| Ohio..... | 218 | 7262 | 14688 | 94 | - | - | 2 | 6 | - | 147 |
| Indiana..... | 53 | 1308 | 17732 | 87 | 2 | 2 | - | 4 | 1 | 22 |
| Illinois..... | 184 | 1718 | 12963 | 91 | 1 | 4 | 1 | 4 | 6 | 57 |
| Michigan..... | 1419 | 19947 | 19118 | 339 | - | - | - | 3 | 1 | 25 |
| Wisconsin..... | 878 | 8495 | 9955 | 170 | - | 1 | - | 2 | 1 | 38 |
| WEST NORTH CENTRAL... | 776 | 14474 | 18808 | 311 | 1 | 7 | - | 3 | 21 | 378 |
| Minnesota..... | 44 | 515 | 225 | 10 | - | - | - | - | 3 | 80 |
| Iowa..... | 558 | 8050 | 13735 | 72 | - | - | - | - | 8 | 116 |
| Missouri..... | 91 | 2262 | 784 | 89 | - | 4 | - | 3 | 3 | 46 |
| North Dakota..... | 78 | 3196 | 3341 | 72 | - | - | - | - | 1 | 17 |
| South Dakota..... | 5 | 75 | 3 | 10 | - | 1 | - | - | 2 | 28 |
| Nebraska..... | - | 376 | 720 | - | - | - | - | - | 1 | 21 |
| Kansas..... | NN | NN | NN | 58 | 1 | 2 | - | - | 3 | 70 |
| SOUTH ATLANTIC..... | 681 | 20122 | 30110 | 1061 | - | 21 | - | 31 | 12 | 279 |
| Delaware..... | 6 | 435 | 300 | 38 | - | - | - | 3 | - | - |
| Maryland..... | 37 | 845 | 2803 | 196 | - | - | - | 9 | - | 2 |
| Dist. of Columbia.. | 7 | 45 | 336 | 14 | - | - | - | - | - | - |
| Virginia..... | 146 | 3084 | 9573 | 209 | - | 3 | - | 3 | 8 | 218 |
| West Virginia..... | 280 | 11428 | 6816 | 290 | - | - | - | 1 | - | 9 |
| North Carolina..... | 8 | 247 | 995 | 9 | - | 4 | - | 7 | - | 1 |
| South Carolina..... | 30 | 863 | 3707 | 50 | - | 3 | - | 4 | - | 1 |
| Georgia..... | 21 | 559 | 144 | 16 | - | 11 | - | 2 | 2 | 23 |
| Florida..... | 146 | 2616 | 5436 | 239 | - | - | - | 2 | 2 | 25 |
| EAST SOUTH CENTRAL... | 453 | 11597 | 48443 | 1048 | - | 14 | 1 | 15 | 14 | 529 |
| Kentucky..... | 33 | 2100 | 16805 | 48 | - | 3 | - | 6 | 1 | 41 |
| Tennessee..... | 312 | 6597 | 18228 | 941 | - | 10 | - | 3 | 10 | 478 |
| Alabama..... | 89 | 1984 | 7088 | 29 | - | 1 | 1 | 3 | - | 7 |
| Mississippi..... | 19 | 916 | 6322 | 30 | - | - | - | 3 | 3 | 3 |
| WEST SOUTH CENTRAL... | 1032 | 26646 | 58466 | 713 | 2 | 17 | 2 | 18 | 16 | 324 |
| Arkansas..... | 5 | 1044 | 950 | - | 1 | 8 | - | 8 | 1 | 47 |
| Louisiana..... | 4 | 68 | 70 | - | - | 1 | - | 2 | 2 | 55 |
| Oklahoma..... | 17 | 155 | 767 | 52 | - | 4 | 1 | 2 | 3 | 61 |
| Texas..... | 1006 | 25379 | 56679 | 661 | 1 | 4 | 1 | 6 | 10 | 161 |
| MOUNTAIN..... | 734 | 15166 | 12825 | 1264 | 1 | 8 | - | 12 | 1 | 34 |
| Montana..... | 94 | 3095 | 2078 | 33 | - | 1 | - | - | - | 3 |
| Idaho..... | 84 | 2058 | 1373 | 71 | - | - | - | - | - | - |
| Wyoming..... | 12 | 720 | 125 | 10 | - | - | - | 1 | - | - |
| Colorado..... | 279 | 4061 | 2251 | 700 | - | - | - | - | - | 1 |
| New Mexico..... | 16 | 524 | 242 | 200 | - | - | - | 7 | - | 6 |
| Arizona..... | 69 | 762 | 5092 | 97 | - | - | - | 4 | - | 23 |
| Utah..... | 177 | 3770 | 1062 | 151 | 1 | 7 | - | - | 1 | 1 |
| Nevada..... | 3 | 176 | 602 | 2 | - | - | - | - | - | - |
| PACIFIC..... | 1028 | 22131 | 43774 | 1337 | - | - | 2 | 12 | 3 | 94 |
| Washington..... | 283 | 6363 | 15826 | 253 | - | - | - | 1 | - | - |
| Oregon..... | 119 | 2697 | 4961 | 13 | - | - | 2 | 3 | - | 2 |
| California..... | 473 | 10315 | 21753 | 959 | - | - | - | 7 | 3 | 91 |
| Alaska..... | 8 | 120 | 980 | 100 | - | - | - | - | - | 1 |
| Hawaii..... | 145 | 2636 | 254 | 12 | - | - | - | 1 | - | - |
| Puerto Rico | 91 | 1460 | 3795 | 18 | - | - | 2 | 3 | 1 | 9 |

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Week No. 20 Table 4. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED MAY 22, 1965

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

| Area | All Causes | | Pneumonia and Influenza All Ages | Under 1 year All Causes | Area | All Causes | | Pneumonia and Influenza All Ages | Under 1 year All Causes |
|----------------------------|------------|-------------------|----------------------------------|-------------------------|--|--------------|-------------------|----------------------------------|-------------------------|
| | All Ages | 65 years and over | | | | All Ages | 65 years and over | | |
| NEW ENGLAND: | 665 | 389 | 19 | 39 | SOUTH ATLANTIC: | 1113 | 528 | 46 | 94 |
| Boston, Mass.----- | 193 | 114 | 3 | 9 | Atlanta, Ga.----- | 112 | 54 | 5 | 6 |
| Bridgeport, Conn.----- | 43 | 21 | 5 | 1 | Baltimore, Md.----- | 270 | 117 | 6 | 29 |
| Cambridge, Mass.----- | 22 | 10 | - | 1 | Charlotte, N. C.----- | 40 | 16 | 1 | 6 |
| Fall River, Mass.----- | 33 | 20 | 1 | 3 | Jacksonville, Fla.----- | 84 | 35 | 2 | 7 |
| Hartford, Conn.----- | 51 | 28 | - | 5 | Miami, Fla.----- | 54 | 25 | 2 | 2 |
| Lowell, Mass.----- | 23 | 16 | - | 2 | Norfolk, Va.----- | 52 | 22 | 4 | 1 |
| Lynn, Mass.----- | 16 | 13 | - | - | Richmond, Va.----- | 96 | 46 | 1 | 9 |
| New Bedford, Mass.----- | 22 | 11 | - | 4 | Savannah, Ga.----- | 28 | 15 | 3 | 5 |
| New Haven, Conn.----- | 40 | 24 | - | 2 | St. Petersburg, Fla.----- | 75 | 56 | 5 | 1 |
| Providence, R. I.----- | 68 | 34 | 2 | 3 | Tampa, Fla.----- | 71 | 37 | 9 | 5 |
| Somerville, Mass.----- | 14 | 8 | - | - | Washington, D. C.----- | 173 | 82 | 4 | 17 |
| Springfield, Mass.----- | 42 | 26 | 3 | 2 | Wilmington, Del.----- | 58 | 23 | 4 | 6 |
| Waterbury, Conn.----- | 38 | 27 | - | 1 | | | | | |
| Worcester, Mass.----- | 60 | 37 | 5 | 6 | EAST SOUTH CENTRAL: | 623 | 333 | 25 | 54 |
| | | | | | Birmingham, Ala.----- | 97 | 47 | 1 | 7 |
| MIDDLE ATLANTIC: | 3246 | 1901 | 143 | 168 | Chattanooga, Tenn.----- | 55 | 22 | 3 | 5 |
| Albany, N. Y.----- | 37 | 20 | - | 1 | Knoxville, Tenn.----- | 38 | 23 | 3 | 2 |
| Allentown, Pa.----- | 48 | 33 | 3 | 3 | Louisville, Ky.----- | 146 | 86 | 7 | 19 |
| Buffalo, N. Y.----- | 136 | 89 | 2 | 4 | Memphis, Tenn.----- | 127 | 71 | 5 | 8 |
| Camden, N. J.----- | 39 | 18 | 2 | 3 | Mobile, Ala.----- | 36 | 16 | - | 4 |
| Elizabeth, N. J.----- | 28 | 17 | 3 | 4 | Montgomery, Ala.----- | 32 | 18 | 5 | 3 |
| Erie, Pa.----- | 41 | 19 | 1 | 3 | Nashville, Tenn.----- | 92 | 50 | 1 | 6 |
| Jersey City, N. J.----- | 59 | 35 | 3 | 5 | | | | | |
| Newark, N. J.----- | 121 | 45 | 9 | 15 | WEST SOUTH CENTRAL: | 1029 | 487 | 36 | 82 |
| New York City, N. Y.----- | 1659 | 967 | 74 | 86 | Austin, Tex.----- | 35 | 22 | 2 | 1 |
| Paterson, N. J.----- | 33 | 20 | 1 | 3 | Baton Rouge, La.----- | 29 | 15 | - | 3 |
| Philadelphia, Pa.----- | 503 | 302 | 12 | 20 | Corpus Christi, Tex.----- | 26 | 14 | - | 1 |
| Pittsburgh, Pa.----- | 150 | 92 | 5 | 8 | Dallas, Tex.----- | 133 | 61 | 1 | 8 |
| Reading, Pa.----- | 45 | 28 | 2 | 1 | El Paso, Tex.----- | 33 | 14 | 2 | 4 |
| Rochester, N. Y.*----- | 97 | 65 | 13 | 6 | Fort Worth, Tex.----- | 90 | 36 | 1 | 9 |
| Schenectady, N. Y.----- | 36 | 27 | - | - | Houston, Tex.----- | 198 | 79 | 6 | 18 |
| Scranton, Pa.----- | 52 | 34 | 1 | 1 | Little Rock, Ark.----- | 64 | 37 | 3 | 6 |
| Syracuse, N. Y.----- | 62 | 33 | 1 | 1 | New Orleans, La.----- | 163 | 80 | 5 | 9 |
| Trenton, N. J.----- | 38 | 19 | 2 | 2 | Oklahoma City, Okla.*----- | 77 | 39 | 1 | 7 |
| Utica, N. Y.----- | 34 | 20 | 5 | 1 | San Antonio, Tex.----- | 103 | 52 | 4 | 8 |
| Yonkers, N. Y.----- | 28 | 18 | 4 | 1 | Shreveport, La.----- | 50 | 24 | 9 | 4 |
| | | | | | Tulsa, Okla.----- | 28 | 14 | 2 | 4 |
| EAST NORTH CENTRAL: | 2605 | 1491 | 72 | 187 | MOUNTAIN: | 387 | 210 | 12 | 33 |
| Akron, Ohio----- | 85 | 54 | 1 | 7 | Albuquerque, N. Mex.----- | 42 | 22 | 1 | 3 |
| Canton, Ohio----- | 31 | 25 | 3 | 2 | Colorado Springs, Colo.----- | 17 | 11 | 4 | - |
| Chicago, Ill.----- | 715 | 384 | 23 | 50 | Denver, Colo.----- | 120 | 61 | 2 | 16 |
| Cincinnati, Ohio----- | 160 | 95 | 4 | 11 | Ogden, Utah----- | 14 | 7 | - | 1 |
| Cleveland, Ohio----- | 214 | 117 | 2 | 11 | Phoenix, Ariz.----- | 98 | 58 | 3 | 8 |
| Columbus, Ohio----- | 108 | 66 | 1 | 9 | Pueblo, Colo.----- | 20 | 9 | - | 2 |
| Dayton, Ohio----- | 83 | 46 | - | 4 | Salt Lake City, Utah----- | 48 | 28 | 1 | 2 |
| Detroit, Mich.----- | 352 | 204 | 21 | 22 | Tucson, Ariz.----- | 28 | 14 | 1 | 1 |
| Evansville, Ind.----- | 48 | 30 | - | 6 | | | | | |
| Flint, Mich.----- | 39 | 15 | - | 6 | PACIFIC: | 1568 | 937 | 41 | 102 |
| Fort Wayne, Ind.----- | 43 | 23 | 3 | 3 | Berkeley, Calif.----- | 22 | 16 | - | - |
| Gary, Ind.----- | 57 | 36 | 1 | 3 | Fresno, Calif.*----- | 47 | 26 | 1 | 4 |
| Grand Rapids, Mich.----- | 55 | 39 | 3 | 1 | Glendale, Calif.----- | 32 | 23 | - | 1 |
| Indianapolis, Ind.----- | 153 | 79 | - | 10 | Honolulu, Hawaii----- | 45 | 19 | - | 9 |
| Madison, Wis.----- | 36 | 20 | - | 1 | Long Beach, Calif.----- | 62 | 39 | - | 6 |
| Milwaukee, Wis.----- | 131 | 68 | 5 | 22 | Los Angeles, Calif.----- | 506 | 263 | 20 | 47 |
| Peoria, Ill.----- | 34 | 21 | - | - | Oakland, Calif.----- | 91 | 69 | 2 | 5 |
| Rockford, Ill.----- | 32 | 15 | - | 5 | Pasadena, Calif.*----- | 33 | 25 | - | 1 |
| South Bend, Ind.----- | 55 | 38 | 4 | 1 | Portland, Oreg.----- | 103 | 57 | 1 | 3 |
| Toledo, Ohio----- | 117 | 75 | 1 | 12 | Sacramento, Calif.----- | 65 | 37 | 3 | 1 |
| Youngstown, Ohio----- | 57 | 41 | - | 1 | San Diego, Calif.----- | 103 | 57 | 2 | 9 |
| | | | | | San Francisco, Calif.----- | 201 | 129 | - | 5 |
| WEST NORTH CENTRAL: | 795 | 478 | 26 | 46 | San Jose, Calif.----- | 31 | 22 | 3 | 2 |
| Des Moines, Iowa----- | 71 | 43 | 2 | 7 | Seattle, Wash.----- | 121 | 81 | 4 | 5 |
| Duluth, Minn.----- | 23 | 18 | - | 1 | Spokane, Wash.----- | 60 | 40 | - | 2 |
| Kansas City, Kans.----- | 30 | 16 | 3 | 1 | Tacoma, Wash.----- | 46 | 34 | 5 | 2 |
| Kansas City, Mo.----- | 109 | 62 | 2 | 5 | | | | | |
| Lincoln, Nebr.----- | 22 | 13 | 2 | 2 | | | | | |
| Minneapolis, Minn.----- | 112 | 72 | 1 | 10 | | | | | |
| Omaha, Nebr.----- | 81 | 45 | 6 | 5 | | | | | |
| St. Louis, Mo.----- | 233 | 136 | 5 | 9 | | | | | |
| St. Paul, Minn.----- | 74 | 45 | 3 | 3 | | | | | |
| Wichita, Kans.----- | 40 | 28 | 2 | 3 | | | | | |
| | | | | | | | | | |
| | | | | | Total | 12031 | 6754 | 420 | 805 |
| | | | | | Cumulative Totals including reported corrections for previous weeks | | | | |
| | | | | | All Causes, All Ages ----- | | | | 260,924 |
| | | | | | All Causes, Age 65 and over----- | | | | 148,809 |
| | | | | | Pneumonia and Influenza, All Ages----- | | | | 12,131 |
| | | | | | All Causes, Under 1 Year of Age----- | | | | 15,220 |

*Estimate - based on average percent of divisional total.

Morbidity and Mortality Weekly Report

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 13,000 IS PUBLISHED BY THE COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA 30333.

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|------------------------------------|------------------------|
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IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASES, SUCH ACCOUNTS SHOULD BE ADDRESSED TO:

THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT
COMMUNICABLE DISEASE CENTER
ATLANTA, GEORGIA 30333

NOTE: THESE PROVISIONAL DATA ARE BASED ON WEEKLY TELEGRAMS TO THE CDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

SYMBOLS:---DATA NOT AVAILABLE
- QUANTITY ZERO

THE CONSTRUCTION OF THE MORTALITY CURVES IS DESCRIBED IN VOL. 14, NO. 1,

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